

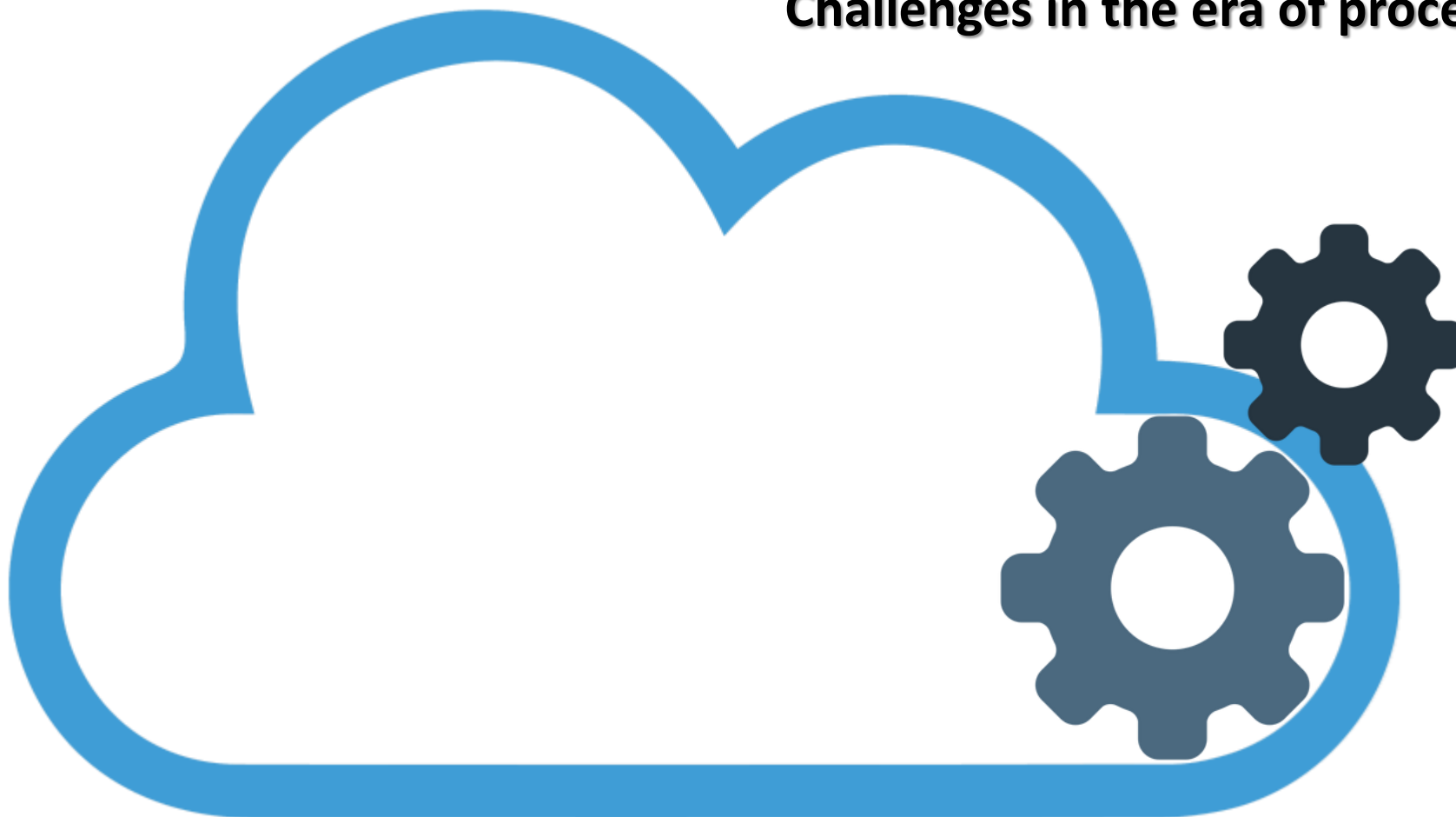


IX WMO
Workshop de Micro-ondas



Cloud Computing & Engineering

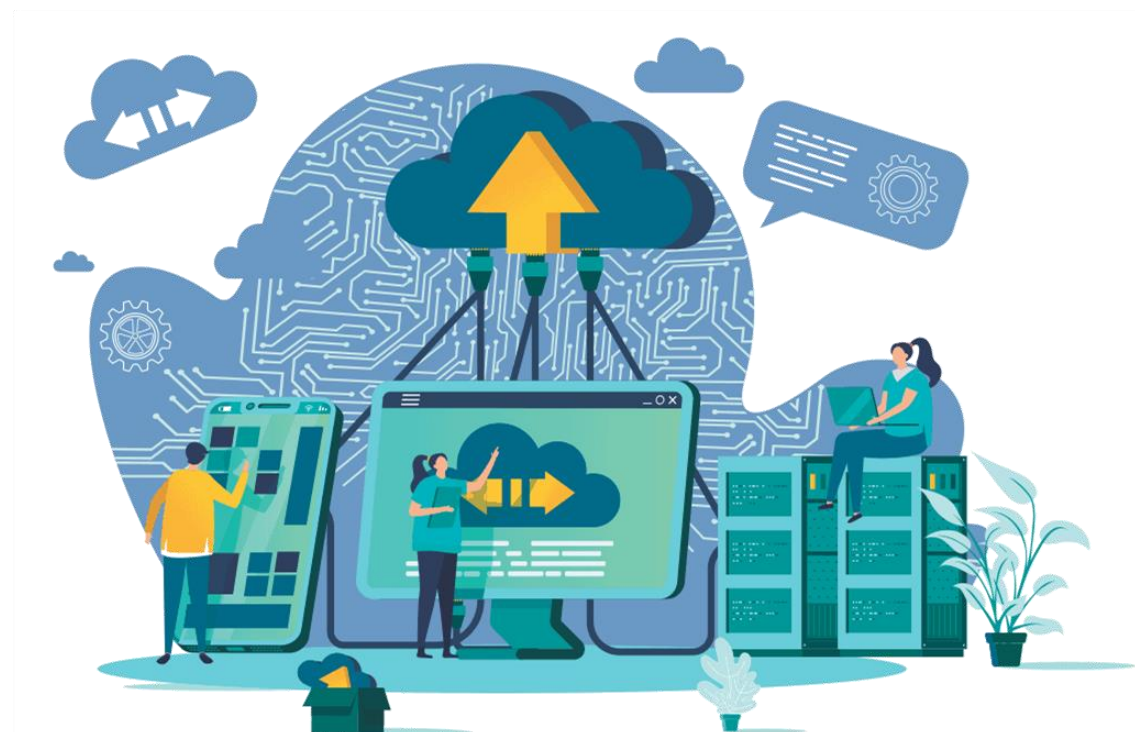
Challenges in the era of process digitization



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Definition

Cloud computing is the delivery of computing services including servers, storage, databases, networking, software, analytics, and intelligence over the Internet (“the cloud”) to offer faster innovation, flexible resources, and economies of scale.



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Main Suppliers



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ADVANTAGES OF CLOUD COMPUTING:

- **Economy**

 - Low price and payment according to usage (variable).

 - No initial expenses (change from Capex to Opex).

- **Agility**

 - Provisioning of resources in minutes.

 - There is no need to wait for hardware acquisition to expand infrastructure.

- **Elasticity**

 - Ability to expand and / or contract infrastructure as required.

- **Safety**

 - Global infrastructure that guarantees disaster recovery.

- **Global reach**

 - Provisioning capacity close to the customer (reduced latency).

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CLOUD COMPUTING TYPES:

- **Public Cloud**

Cloud service offered by Cloud providers (AWS, Azure, GCP, ...).
“Public” does not mean having free access in this case.

- **Private Cloud**

The client has an infrastructure / software for provisioning resources as needed (using solutions such as VMWare, Vagrant, ...).

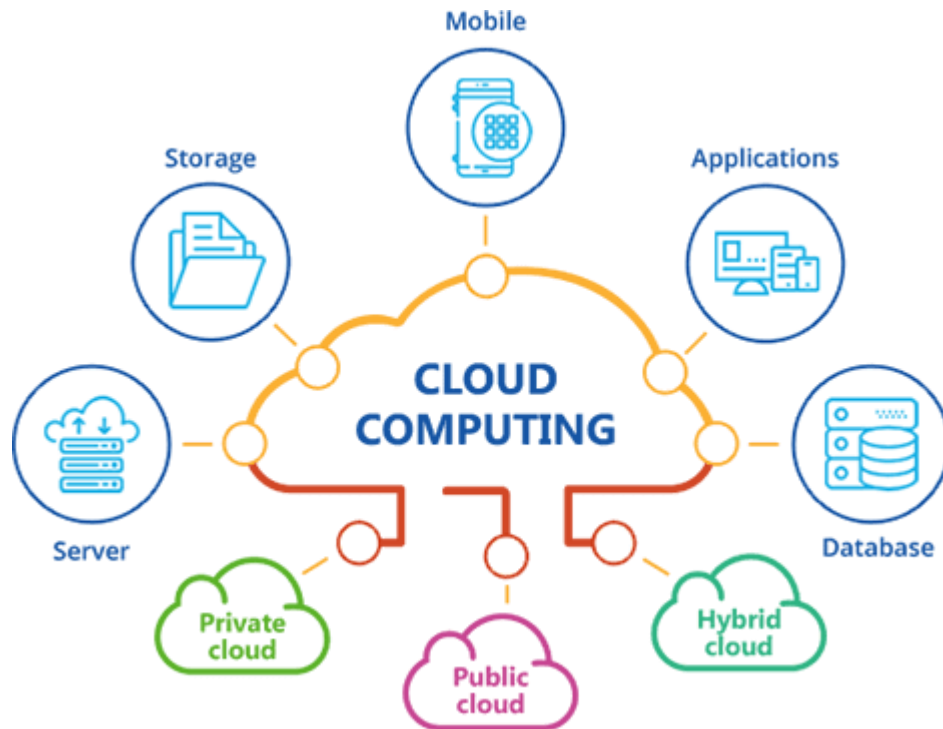
- **Hybrid Cloud**

It is the combination of the two types mentioned above.

The connection between the two environments is guaranteed by the provider's applications.

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CLOUD COMPUTING INFRASTRUCTURE



Is the collection of hardware and software elements needed to enable cloud computing. It includes computing power, networking, and storage, as well as an interface for users to access their virtualized resources. The virtual resources mirror a physical infrastructure, with components like servers, network switches, memory and storage clusters.

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CLOUD COMPUTING SERVICES TYPES:

- **Infrastructure as a Service - Infrastructure As a Service – IaaS**
The customer hires a computing resource and is responsible for all installation performed on this server.
- **Platform as a Service - Platform As a Service – PaaS**
The provider is responsible for the Operating System and security patches.
The Client is responsible for the implementation of his application.
- **Software as a Service - Software As a Service – SaaS**
Environment intended for end users, as provider is responsible for ensuring the functioning of the platform.

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CLOUD COMPUTING SERVICES TYPES:



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CLOUD COMPUTING POSSIBILITIES



- **IoT – Internet of Things**
- **4.0 Industries**
- **Telecommunication**
- **Big Data**
- **Business Integration**

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Thanks 😊

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